

Amendment to the Drawings

The attached New Sheet includes FIG. 4 (which shows an isomeric view of a portion of a compact flash hard disk drive illustrating a finger grip as an array of spherical bumps) and FIG. 5 (which shows an isomeric view of a portion of a compact flash hard disk drive illustrating a finger grip as an array of pyramid-shaped bumps), which embodiments of finger grips are disclosed in the specification.

Attachment: New Sheet

Remarks

Applicant has: (a) amended claims 5 and 8 to more clearly define the present invention; (b) cancelled claims 1-4 and 9-10; (c) submitted a New Sheet that includes FIGs. 4-5 which show finger grips that are fabricated in accordance with further embodiments disclosed in the specification; and (d) amended the specification to refer to FIGs. 4-5. No new matter has been added.

The Examiner objected to the drawings under 37 CFR 1.83(a). Specifically, the Examiner stated:

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "array of bumps", "spherical bumps", and "pyramid-shaped bumps" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The drawings are objected to under 37 CFR 1.83(a) because they fail to show "an array of bumps", "spherical bumps", and "pyramid-shaped bumps" as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawings sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Applicant has submitted a New Sheet for the Examiner's approval. The New Sheet contains FIGs. 4-5 which show finger grips that are fabricated in accordance with further embodiments disclosed in the specification. In particular, FIG. 4 shows an isomeric view of a portion of a compact flash hard disk drive illustrating a finger grip as an array of spherical bumps, and FIG. 5 shows an isomeric view of a portion of a compact flash hard disk drive illustrating a finger grip as an array of pyramid-shaped bumps.

In light of this, Applicant respectfully requests the Examiner to withdraw the objection to the drawings.

The Examiner rejected claim 1-10 under 35 U.S.C. 103(a). Specifically, the Examiner stated:

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US. 6,545,839 B2) in view of Kadonaga (US. 6,768,645 B2).

Smith discloses a small "form factor" disk drive 11 for use in an appliance 63, which disk drive has a connector side 24, a removable side (see figures), and gripping sides (see figures); and a gripping mechanism 91 affixed to the lateral side of the disk drive (figures 18-20) or affixed to the side edges (figures 3-16) and the gripping mechanism are exposed whenever the appliance ejects the disk drive.

Smith, however, does not disclose that the gripping mechanisms are disposed on the gripping sides as set forth in claims 1 and 9.

Kadonaga discloses an IC card incorporating a semiconductor memory (static memory), for use in an appliance 1, having a connector side 11a, a removal side 11e, and gripping sides (11c and 11d); wherein the gripping sides include gripping mechanisms (102 and 103; figures 11-12) that are disposed along or adjacent the gripping sides so that the gripping mechanisms are exposed whenever the appliance ejects the IC memory card, all as set forth in claims 1 and 9.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the gripping mechanism of Smith with the gripping mechanism as set forth, supra as taught by Kadonaga through an obvious routine of an engineer replacement of parts or relocate. No new or unobvious to modify the gripping mechanism of Smith from lateral or side edge to gripping sides as set forth in Kadonaga.

Regarding claims 2-4, Kadonaga discloses that the gripping mechanisms comprise a predetermined number of protuberances/ridges (figures 11 and 12) and the protuberances/ridges are disposed within the form factor of the IC memory card.

Regarding claim 8, Smith as modified by Kadonaga inherently discloses that the surface of the protuberances have "high" friction.

Regarding claim 10, Smith as modified by Kadonaga discloses that the gripping mechanisms have a rough or "high" friction surface.

Regarding claims 5-7, Smith as modified by Kadonaga do not disclose that the protuberances comprise an array of bumps (claim 5); wherein the bumps are spherical bumps (claim 6) or pyramid-shaped bumps (claim 7). Kadonaga only discloses that the protuberances are ridges.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the gripping mechanism of Smith as modified by Kadonaga from ridges to an array of bumps (claim 5); wherein the bumps are spherical bumps (claim 6) or pyramid-shaped bumps (claim 7) through an obvious modification from a known structure to reduce the thickness or side of the disk drive in order to provide a more compact drive.

Applicant has: (a) amended claims 5 and 8 to more clearly define the present invention; and (b) cancelled claims 1-4 and 9-10. As such, Applicant respectfully traverses the Examiner's rejection.

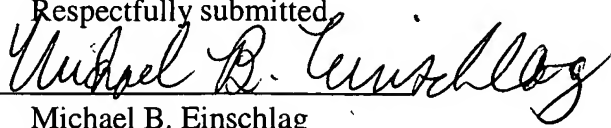
As to claims 5-7: Applicant respectfully submits that the Examiner admits that "Smith as modified by Kadonaga do not disclose that the protuberances comprise an array of bumps (claim 5); wherein the bumps are spherical bumps (claim 6) or pyramid-shaped bumps (claim 7). Kadonaga only discloses that the protuberances are ridges. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the gripping mechanism of Smith as modified by Kadonaga from ridges to an array of bumps (claim 5); wherein the bumps are spherical bumps (claim 6) or pyramid-shaped bumps (claim 7) through an obvious modification from a known structure to reduce the thickness or side of the disk drive in order to provide a more compact drive."

In light of this, Applicant respectfully submits that the Examiner has rejected these claims based on improper use of hindsight. Specifically, there is no teaching or suggestion of any kind in Smith or in Kadonaga that the use of gripping mechanisms comprised of ridges create any sort of a thickness problem for the IC card of Kadonaga or for the disk drive of Smith. As such, there is no reason why one of ordinary skill in the art would seek an alternative to the ridges shown in Kadonaga to reduce thickness. In addition, Applicant respectfully submits that even if one of ordinary skill in the art were to fabricate a gripping mechanism to provide reduced thickness, that one of ordinary skill in the art would not necessarily look for an array of bumps (spherical, pyramid-shaped, or any other shape) since such bumps do not necessarily (although they could in certain configurations) provide reduced thickness. Because of this, Applicant respectfully submits that there is no motivation or suggestion to combine Smith and Kadonaga. However, Applicant respectfully submits that even if one of ordinary skill in the art were to combine Smith and Kadonaga in the manner suggested by the Examiner, that one of ordinary skill in the art would not arrive at the invention of claims 5-7 because neither Smith nor Kadonaga teaches or suggests the use of an array of bumps (spherical, pyramid-shaped or any other shape). Hence, Applicant respectfully submits that claims 5-7 are patentable over Smith in view of Kadonaga.

As to claim 8: Applicant respectfully submits that claim 8 depends from claim 5, and as such, Applicant respectfully submits that claim 8 is patentable for the same reasons set forth above with respect to claim 5. In addition, the Examiner has stated: “Regarding claim 8, Smith as modified by Kadonaga inherently discloses that the surface of the protuberances have ‘high’ friction.” Applicant respectfully disagrees. Specifically, Kadonaga discloses an IC card 100 (see FIGs. 11 and 12) with finger rests 102 and 103. Kadonaga states the following at col. 9, lines 63-67: “The IC card 100 of the other type is small too. However, it has finger rests 102 and 103 provided on the opposing sides 11c and 11d, respectively. As FIGs. 11 and 12 show, the finger rests 102 and 103 are adjacent to the rear edge 11e, remote from the front edge 11a where the terminal section 12 is provided. The finger rest 102 has parallel grooves 102a, and the finger rests 103 parallel grooves 103a. The grooves 102a and 103a extend in the thickness direction of the card body 11. Alternatively, the finger rests 102 and 103 may have small pits each, thus having a rough surface each. (Emphasis added)” As the Examiner can readily appreciate from this, Kadonaga does not teach finger rests having ridges and a rough surface, but that Kadonaga specifically teaches using either finger rests having ridges or finger rests having a rough surface. Hence, in light of this, Applicant respectfully submits that neither Smith nor Kadonaga inherently discloses that a surface of the protuberances has “high” friction. Thus, Applicant respectfully submits that neither Smith nor Kadonaga teaches nor suggests an array of bumps or an array of bumps having a rough surface as required by claim 8.

In light of the above, Applicant respectfully requests the Examiner to withdraw this rejection.

In light of the above, Applicant respectfully submits that all the remaining claims are allowable, and Applicant respectfully requests that the Examiner reconsider the case and pass the case to issue. Should the Examiner have any questions or wish to discuss any aspect of the application, a telephone call to the undersigned would be welcome.

Respectfully submitted,
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